CLAIMS

We claim:

1 A method of treating an amyloid disease, or a disease characterized by alpha-synuclein or NAC fibrillogenesis, in a mammalian subject, the method comprising administering to the mammal a therapeutically effective amount of a catechin selected from the group consisting of catechin, epicatechin, gallocatechin gallate, epigallocatechin gallate, epigallocatechin, and epicatechin gallate, and pharmaceutically acceptable salts of the foregoing catechins.

2. The method of claim 1 wherein the selected catechin is epicatechin.

3. The method of claim 1 where the amyloid disease is selected from the group of diseases consisting of Alzheimer's disease, Down's syndrome, hereditary cerebral hemorrhage with amyloidosis of the Dutch type, inclusion body myositosis, the amyloidosis of chronic inflammation, the amyloidosis of malignancy and Familial Mediterranean Fever, the amyloidosis of multiple myeloma and B-cell dyscraisa, the amyloidosis of type 2 diabetes, the amyloidosis of prion diseases, Creutzfeldt-Jakob disease, Gerstmann-Straussler syndrome, kuru, scrapie, and mad cow disease, the amyloidosis of long-term hemodialysis, the amyloidosis of carpal tunnel syndrome, senile cardiac amyloidosis, and Familial Amyloidotic Polyneuropathy, the amyloidosis of endocrine tumors, systemic AA amyloidosis, AL amyloidosis, Aß amyloidosis, IAPP amyloidosis and PrP amyloidosis.

4. The method of claim 3 where the amyloid disease is Alzheimer's disease.

5. The method of claim 3 where the amyloid disease is systemic AA amyloidosis.

6. The method of claim 1 where the alpha-synuclein or NAC fibrillogenesis is a fibrillogenesis selected from the group of diseases consisting of Lewy body disease, Parkinson's disease and multiple system atrophy.

7. A method of treatment of amyloid, alpha-synuclein or NAC fibrillogenesis, in an *in vitro* environment, the method comprising the step of administering into the *in vitro* environment a therapeutically effective amount of a catechin selected from the group consisting of catechin, epicatechin, gallocatechin gallate, epigallocatechin gallate, epigallocatechin, and epicatechin gallate, and pharmaceutically acceptable salts of the foregoing catechins.

8. The method of claim 1 further comprising an administration step whereby, the therapeutic amount of catechin is administered to the subject, selected from the group of administration steps consisting of oral administration, parenteral injection,

intraperitoneal injection, intravenous injection, subcutaneous injection, intramuscular injection, topical administration, and aerosal spray administration.

9. A pharmaceutical composition comprising a therapeutically effective amount of a catechin and a pharmaceutically acceptable carrier, diluent, or excipient, the therapeutic amount of the catechin selected for efficacy in treating amyloid, alpha-synuclein or NAC fibrillogenesis in a mammalian subject.

10. The composition of claim 8 wherein the therapeutically effective amount of the catechin comprises a dosage in the range of about 10 to 1,000 mg/kg of body weight of the subject.

11. The composition of claim 10 wherein the therapeutically effective amount of the catechin comprises a dosage in the range of about 10 to 100 mg/kg of body weight of the subject.

12. The composition of claim 9 wherein the catechin is selected from the group consisting of catechin, epicatechin, gallocatechin gallate, epigallocatechin gallate, epigallocatechin, and epicatechin gallate, and pharmaceutically acceptable salts of the foregoing catechins, and the pharmaceutically acceptable analogs and derivatives thereof.

13. The composition of claim 12 comprising a mixture of two or more of the catechins selected from the group consisting of catechin, epicatechin, gallocatechin gallate, epigallocatechin gallate, epigallocatechin, and epicatechin gallate, and pharmaceutically acceptable salts of the foregoing catechins, and the pharmaceutically acceptable analogs and derivatives thereof.

14. The composition of claim 12 wherein each catechin selected is present in a percentage purity that significantly exceeds a proportion percentage of the catechin presence in a plant, or extract from a plant.

15. The composition of claim 15 wherein the catechin selected is in substantially pure isolated or synthetic form.

16. A method of treating an amyloid disease, or a disease characterized by alpha-synuclein or NAC fibrillogenesis, in a mammalian subject, the method comprising administering to the mammal a therapeutically effective amount of plant matter from a plant of the genus Camellia, species sinensis.